Figure 1

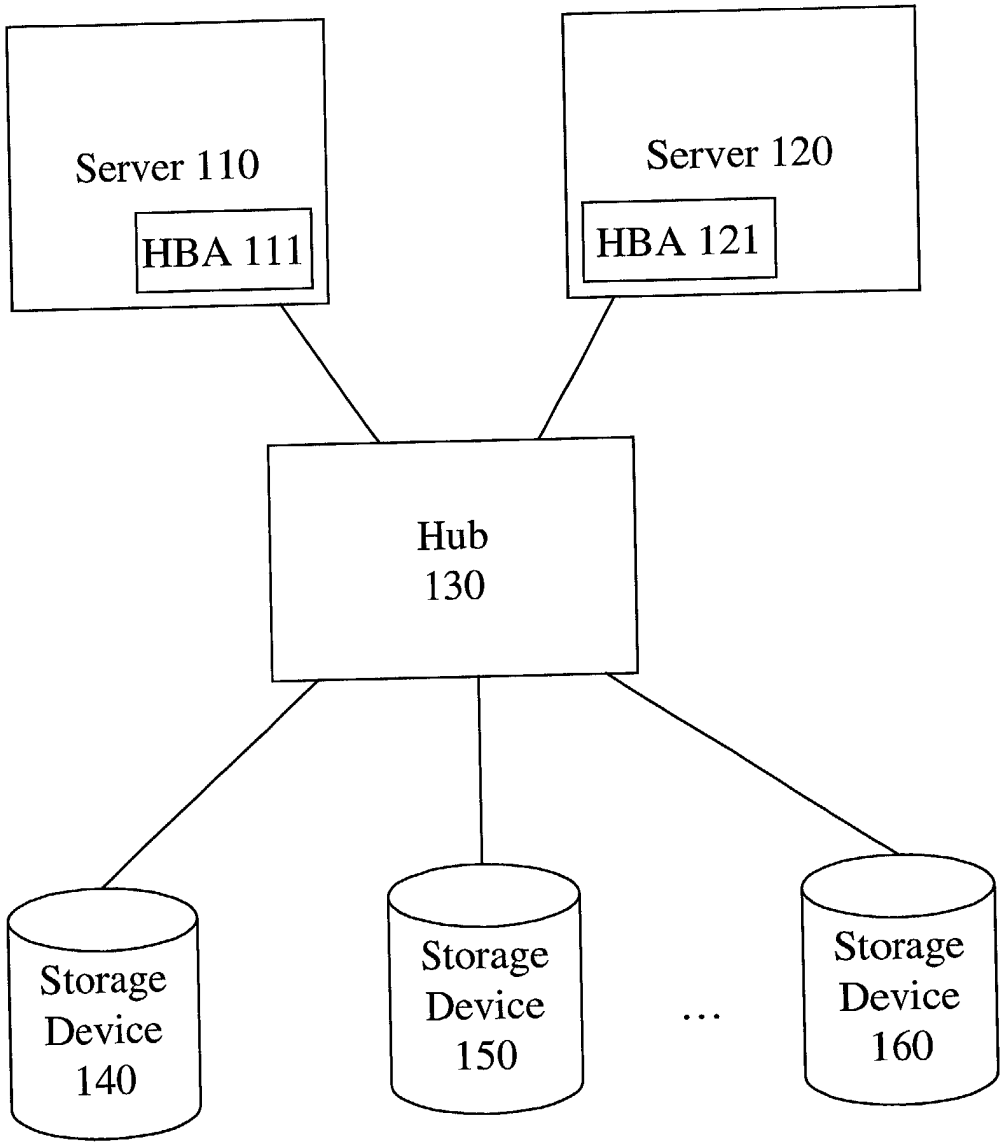

100
Server 110
HBA 111
Server 120
HBA 121
Hub
130
Storage
Device
140
Storage
Device
150
...
Storage
Device
160

Figure 2

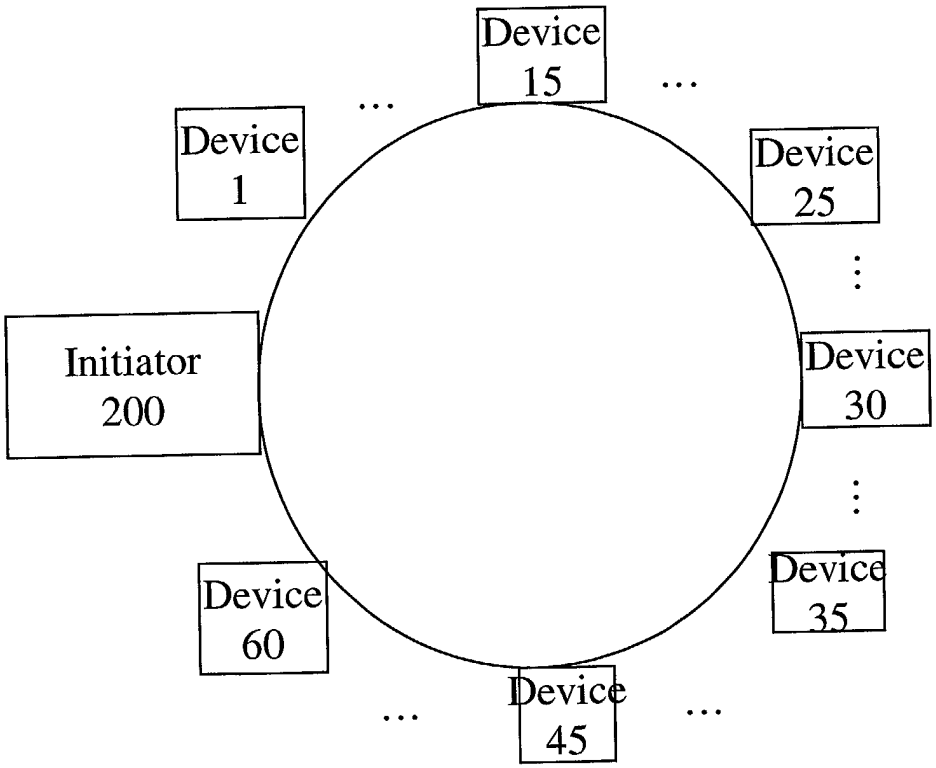

Device 15
Device 1
Device 25
Initiator 200
Device 30
Device 35
Device 60
Device 45

Figure 3

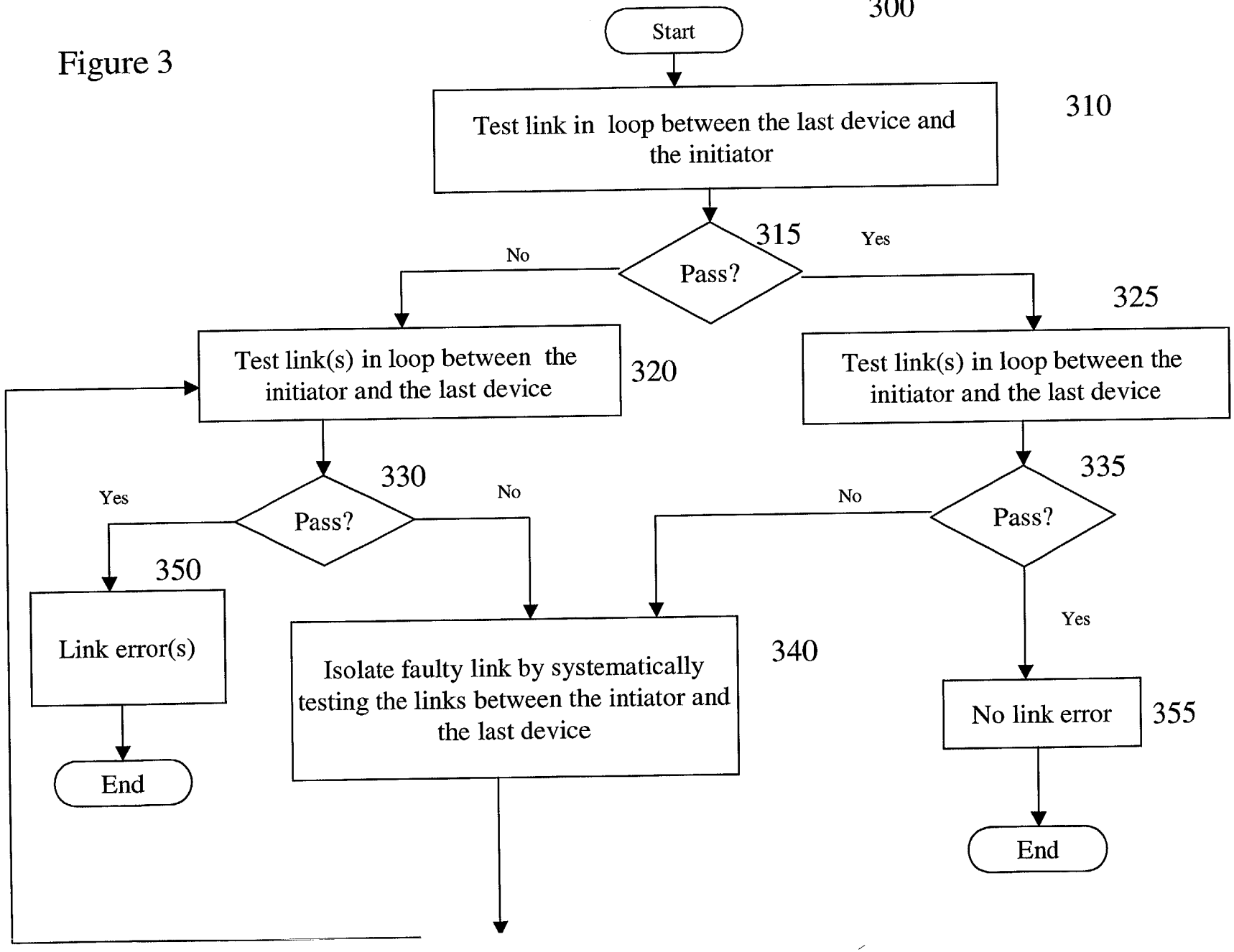

300
Start
Test link in loop between the last device and the initiator
310
315
Pass?
No
Yes
Test link(s) in loop between the initiator and the last device
320
325
Test link(s) in loop between the initiator and the last device
330
Pass?
Yes
No
335
Pass?
No
Yes
350
Link error(s)
End
Isolate faulty link by systematically testing the links between the intiator and the last device
340
No link error
355
End

Fig. 4a

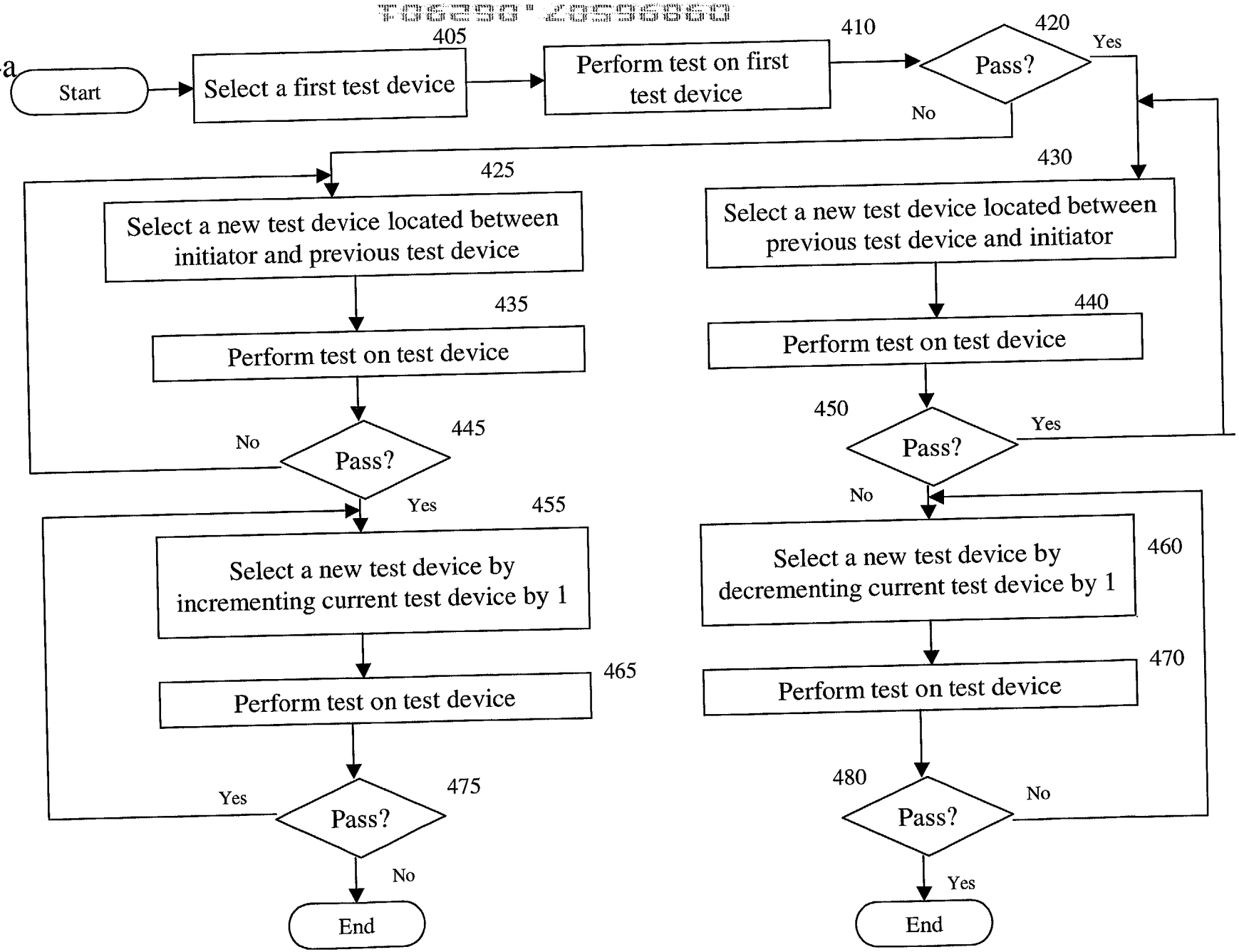

Start
405
Select a first test device
Perform test on first test device
410
Pass?
420
Yes
No
425
Select a new test device located between initiator and previous test device
435
Perform test on test device
445
Pass?
No
Yes
455
Select a new test device by incrementing current test device by 1
465
Perform test on test device
475
Pass?
Yes
No
End
430
Select a new test device located between previous test device and initiator
440
Perform test on test device
450
Pass?
Yes
No
460
Select a new test device by decrementing current test device by 1
470
Perform test on test device
480
Pass?
No
Yes
End

Fig. 4b

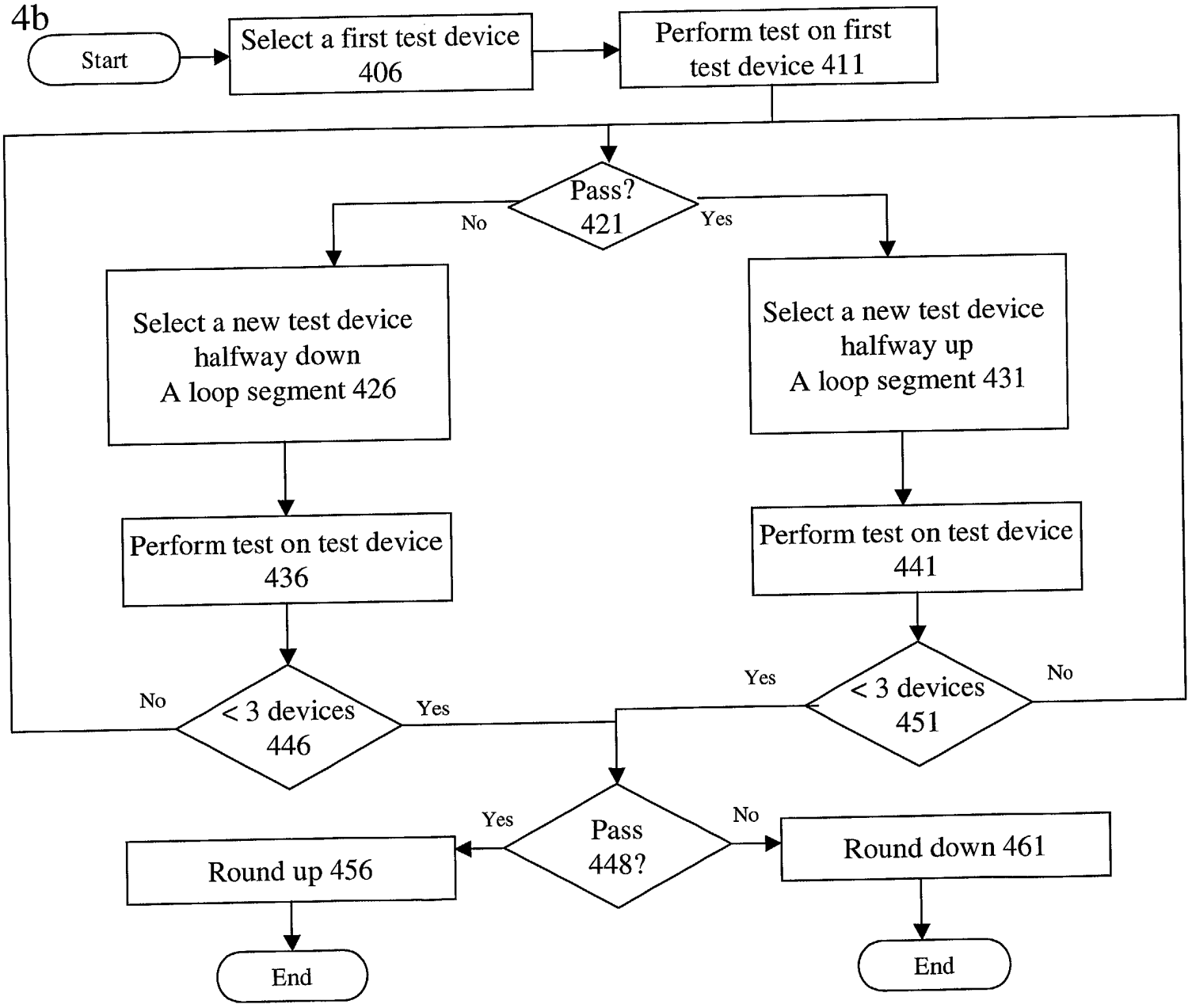

Start
Select a first test device 406
Perform test on first test device 411
Pass? 421
No
Yes
Select a new test device halfway down A loop segment 426
Select a new test device halfway up A loop segment 431
Perform test on test device 436
Perform test on test device 441
< 3 devices 446
No
Yes
< 3 devices 451
Yes
No
Pass 448?
Yes
No
Round up 456
Round down 461
End
End

Figure 4c

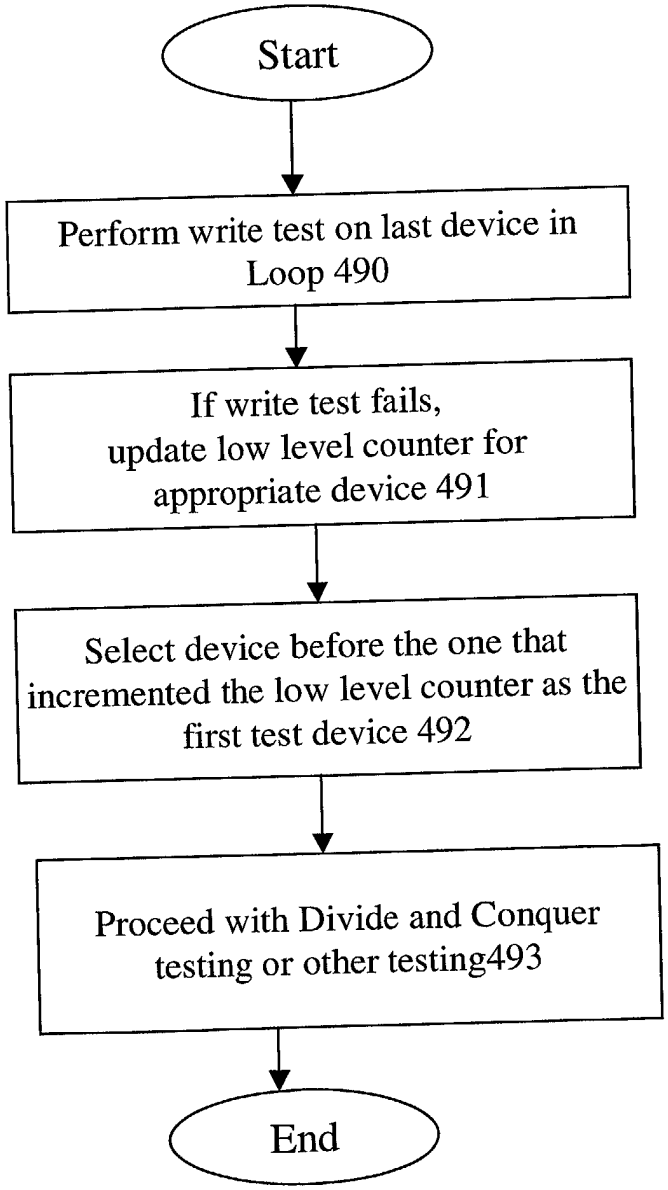

Start
Perform write test on last device in Loop 490
If write test fails, update low level counter for appropriate device 491
Select device before the one that incremented the low level counter as the first test device 492
Proceed with Divide and Conquer testing or other testing493
End

Figure 5

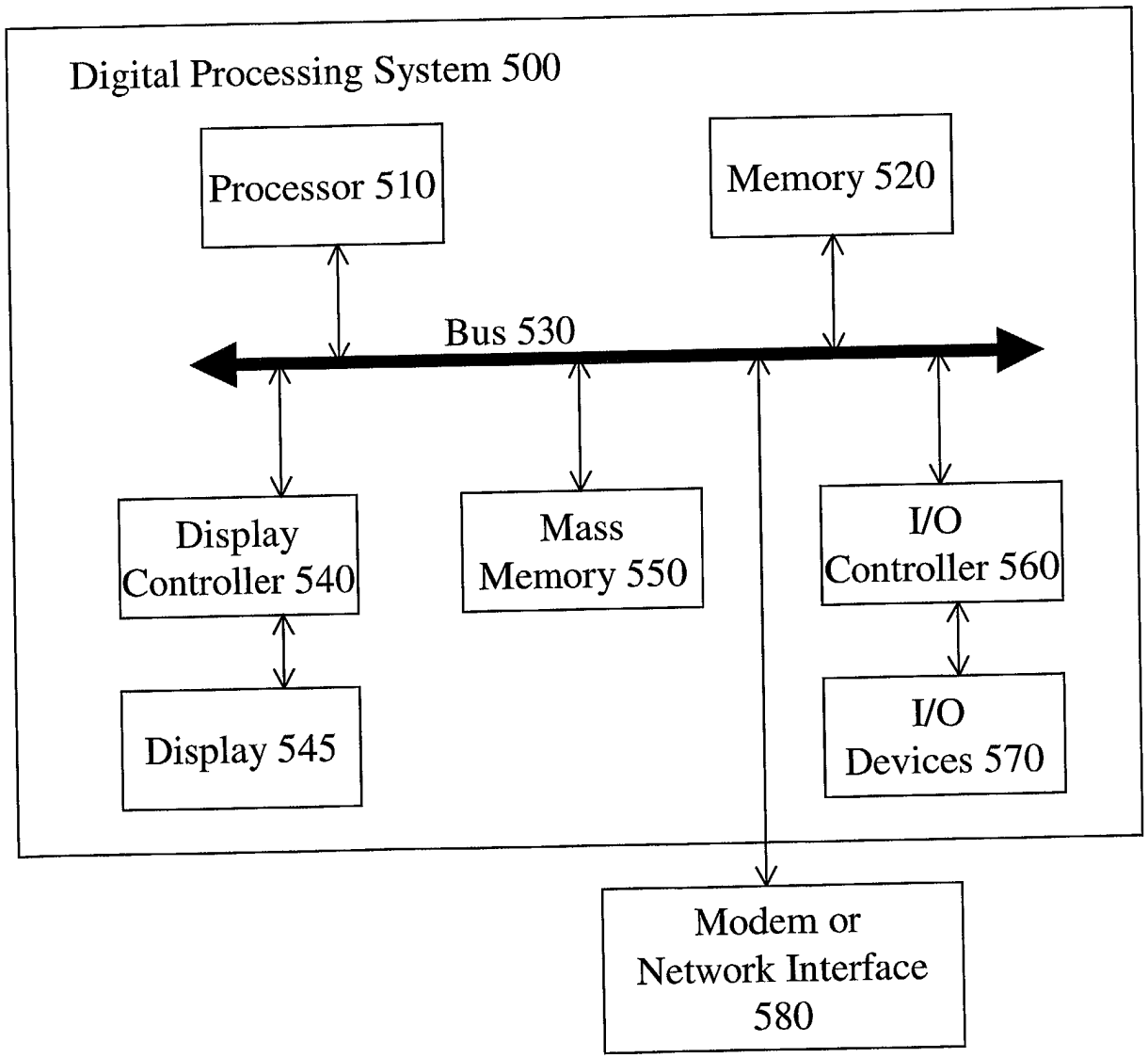
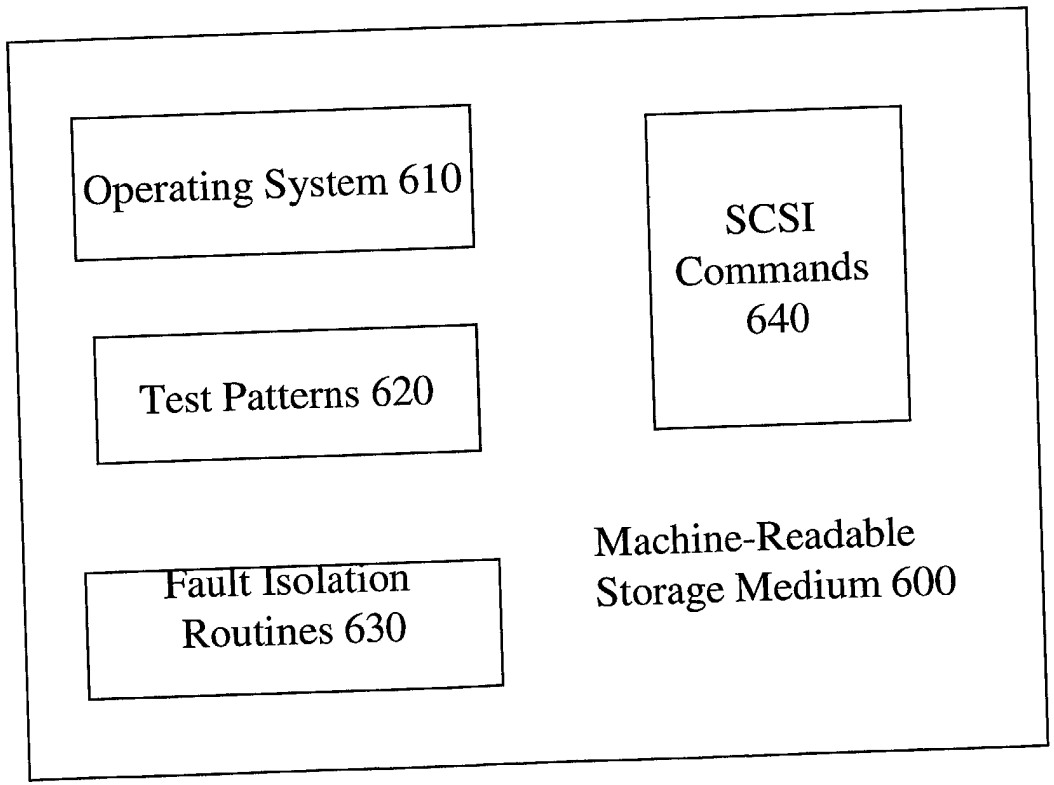

Digital Processing System 500
Processor 510
Memory 520
Bus 530
Display Controller 540
Mass Memory 550
I/O Controller 560
Display 545
I/O Devices 570
Modem or Network Interface 580

Figure 6


Operating System 610
Test Patterns 620
Fault Isolation Routines 630
SCSI Commands 640
Machine-Readable Storage Medium 600